June 1, 2023
Our File: 105172

City of Guelph
Planning and Building, Engineering and Environment
City Hall
1 Carden Street
Guelph, ON N1H 3A1

Attention: Mr. Michael Witmer
Senior Development Planner

Re: 20 & 37 Cityview Drive North
Response Letter - Comments

Dear Mr. Witmer:

In response to the comments received from the City of Guelph (Parks comments dated May 31, 2022, Environmental Planning comments dated June 3, 2022 and Development Engineering comments dated June 8, 2022) and Grand Riven Conservation Authority (comments dated December 14, 2021), we offer the following for your review and consideration:

Mallory Lemon – Parks
City of Guelph
Comments Dated May 31, 2022

Comments related to the Draft Plan will be addressed by others. The comments related to the EIR will be addressed at a later date part of the detailed submission once Draft Plan approval has been granted.

Preliminary Servicing and Stormwater Management Report

Comment: It appears that the park block can be designed to meet City standards for park block development. However the park block grading needs to be refined at the Environmental Implementation Report stage to be consistent with Section 7.12.11 of the City of Guelph Official Plan regarding recommended table land for a neighbourhood park (80%).

Response: *Acknowledged. The park block grading will be further refined at the EIR Stage.*

Comment: Remove reference to chain link fence along the north boundary of the park block on drawing GP-1 and all other instances. Since this park is proposed in conjunction with the park block in the development to the north to create a larger park, fencing is not required along this boundary

Response: *Acknowledged. Reference to chain link fence has been removed.*

Comment: Please include text in the Preliminary Servicing and Stormwater Management Report that confirms that appropriate manholes/ catch basins on the street in front of the park which will have the capacity to accept surface water drainage and storm pipe connections from the future park will be provided. The park is proposed to have 50% of the area as paved and 50% as grass.

Response: *Acknowledged. The park block is proposed to drain to the clean water collector sewer system. The clean water collector has been sized with the assumption that the park block will be 50% impervious, as such, a runoff coefficient "C" value of 0.55 has been assigned per the City of Guelph Development Engineering Manual to reflect the 50% imperviousness. Notes have been added on the clean water collector catchment area plan indicating the 0.55 runoff coefficient for the park block. In addition, the percent impervious calculations used in the design of the stormwater management pond, found in Appendix J of the revised preliminary servicing and stormwater management report include the park block with 50% imperviousness.*

Comment: Please include text in the Preliminary Servicing and Stormwater Management Report that confirms that electrical servicing for the park will be provided at the property line.

Response: *Utility design will be completed as part of the detail engineering submission once Draft Plan approval has been granted. The electrical servicing requirements for the park block will be discussed at the detail design stage and the required servicing to the property line will be shown on the electrical servicing drawings.*

Comment: Please include text in the Preliminary Servicing and Stormwater Management Report that confirms that water service for the park will be provided at the property line.

Response: *Acknowledged. Section 4.3 of the revised preliminary servicing and stormwater management report indicates that a 50mm water services will be provided to the park block's property line.*

Comment: Please review the infiltration galleries at the rear of lots 65-79 in relation to the trail alignment and elevations, and confirm that they will have no negative impact to the trail surface, base, and sub-base or overall stability of the trail construction. Provide commentary on this in the Preliminary Servicing and Stormwater Management Report

Response: *Acknowledged. The infiltration galleries at the rear of lots 65-79 have been removed from the revised design.*

Jason Elliott – Environmental Planner
City of Guelph
Comments Dated June 3, 2022

Comment: The future trail through the NHS on the adjacent site to the north that leads to Watson Pkwy is no longer planned. Please remove from the figures in the report. Similarly, based on comments on this submission, adjust the north south portion of the future trail on the subject site to line up with the future trail on the adjacent site to the north.

Response: *Acknowledged. Drawings have been updated to show revised trail location. Figure 3 by North-South Environmental has been updated to reflect revised trail location and the Planning Policy Update report has also been amended.*

Comment: It does not appear that the groundwater data was considered in the proposal. Based on the hydrographs in Appendix C of the SWM Report and the grading plans, it appears that most, if not all, of the proposed infiltration galleries will not be able to meet the required 1m separation from the seasonal high groundwater level (SHGL). Further, it appears that there would not be much separation between the SHGL and basements. Finally, the groundwater elevation shown on Section L-L on Drawing STM1 does not correspond to the data such that it appears that the stormwater pond outlet may be within the SHGL.

Response: *Acknowledged. The infiltration gallery locations have been revised. The seasonal high groundwater separation is discussed in Section 4.8 – Water Budget of the revised Preliminary Servicing and Stormwater Management Report.*

It is noted that the pattern of groundwater levels on-site is dominated by the silt till soils that make up the overburden. It is emphasized that the groundwater levels across the developable area of the site are due to seasonal infiltration and precipitation processes, not persistent groundwater discharge conditions. Groundwater levels rise to levels near the ground surface in the spring due to the increased availability of moisture and infiltration and the comparatively low rate of seepage though the soil mass. This annual rise in groundwater levels is enhanced by the natural microtopography and uneven ground surface which encourages infiltration.

Under post-development conditions, groundwater levels can be expected to decrease somewhat due to a number of factors, including the increased imperviousness of the site, engineered grading with uniform and constructed slopes, and the installation of services which create preferential drainage paths. The former two factors will reduce the opportunity for infiltration, whereas the latter will increase the capacity for seepage and internal drainage of groundwater through the soil mass.

In addition, we note that the stormwater management pond outlet is not located within the groundwater table. Section L-L had previously indicated a groundwater elevation at BH 104, where the ground elevation is approximately 3 m higher than the outlet location. Please see the revised Stormwater Pond Plan and Sections drawing for an updated section showing the pond outlet and seasonal high groundwater elevation reading.

Comment: Confirm that the proposed infiltration galleries at the rear of lots 65-79 will not impact the adjacent trail and retaining wall.

Response: *The infiltration galleries at rear of lots 65-79 have been removed.*

Comment: If the infiltration galleries could not be implemented, the proposed 16% deficit in post-development infiltration would be markedly increased. Further, if separation between basements and the SHGL isn't provided, foundation drains will cause a further deficit. Finally, the reliance on privately-owned infiltration galleries leads to uncertainty regarding the maintenance of the water balance over the long-term (i.e., due to improper maintenance or complete removal). It is preferred that enhanced infiltration is provided in a public facility. As the site is within the Clythe Creek subwatershed, at minimum the proposal must include an infiltrative water balance that is matched to within 10% using a design that is demonstrated to be implementable and maintained over the long-term. If necessary, the draft plan should be revised to provide more SWM and/or open space to meet this requirement. Further discussion is recommended.

Response: *Acknowledged. The design has been revised to include two public infiltration galleries located in the stormwater management block and south of Street 1 – the private infiltration galleries have been removed from the proposed design. The revised water balance calculations show a up to a 2% surplus in recharge volumes during dry years and up to a 9% deficit in recharge volumes if*

one of the infiltration galleries is not functioning due to high groundwater levels. Please refer to Section 4.8 – Water Budget of the revised Preliminary Servicing and Stormwater Management Report for additional details.

Comment: Ensure that Development Engineering and GRCA comments regarding potential errors in the infiltration calculations are addressed.

Response: *Acknowledged. The infiltration gallery calculations have been revised.*

Comment: Clarify why the pre-development values changed in the water balance. Further, clarify how post-development runoff increased relative to the previous submission when infiltration increased significantly, ET only decreased a small amount, and all other relevant factors were unchanged (i.e., why didn't the runoff decrease commensurate with the large increase in infiltration?).

Response: *Acknowledged. The water balance calculations have been revised per discussions at the October 31, 2022 meeting to eliminate errors from previous submissions.*

Comment: The description of Catchment 201 in the SWM report and Figure 6 are not consistent.

Response: *Acknowledged. Catchment 201 description has been revised.*

Comment: Clarify why Table 7 indicates an increased runoff volume to wetland/Clythe Creek relative to the last submission. Increased runoff to the wetland/Clythe Creek relative to pre-development levels should be minimized to support wetland water balance and thermal impact mitigation in the creek.

Response: *Acknowledged. The pre-development flow rates and runoff volumes have been further revised to reflect a 3-hour Chicago storm event per City comments.*

Comment: Based on the responses, it appears that the post-development flow rate to the wetland/Clythe Creek was increased from the last submission to support wetland water balance. Generally, volume is more important than flow rates for wetland water balance. Given this and to reduce erosion potential down the drumlin slope, it is preferred if the post-development flow rate is reduced to the extent feasible.

Response: *Acknowledged. Post-development flow rates to the wetland/Clythe creek have been reduced in the revised design.*

Comment: As per previous comments, alternative techniques for thermal mitigation such as bottom draw or night-time release should be explored. While details can be finalized in the EIR/detailed design stage, the potential for these techniques should be confirmed at this stage. Is it possible to make the wetland component of the SWM pond shallower as per GRCA's comment and reduce thermal loading in the pond? What technique would have the most benefit?

Response: *Acknowledged. The wetland component of the stormwater management pond has been revised per the GRCA comments. In addition, the cooling trench has been revised to be buried approximately 2m into the ground to ensure that solar radiation will not have an impact over the performance of the cooling trench. Best management practices are also proposed through planting of the stormwater management facility to help shade the permanent pool, slopes, outlet structure and linear dispersion trench and reduce the effect of solar radiation on the stormwater management system.*

Comment: GRCA comments including a recommendation that the Geotechnical Engineer review slope stability downstream of the SWM outlet during detailed design. The EIS also acknowledges the potential for erosion down the slope and recommends a post-development monitoring plan with adaptive mitigation. As the slope is within the NHS, the potential for impacts must be understood prior to approval. Therefore, a geotechnical opinion must be provided that the SWM discharge will not cause slope erosion must be provided.

Response: *A Slope Stability Assessment has been completed by JLP Services Inc. (JLP) in 2023 to assess the stability and erosion of the existing slope at the stormwater management facility outlet. It has been concluded that the slope is stable under proposed conditions with full flow from the stormwater management facility.*

The lower portion of the existing slope (i.e. 10m natural heritage system buffer) is natural and will remain undisturbed by the proposed development. The disturbed portions required to construct the stormwater management facility complete with cooling trench and linear energy dissipation and dispersion trench are to be topsoiled, seeded (or sodded) and re-vegetated following the construction of the stormwater management facility works. Furthermore, the use of natural or synthetic erosion control products (i.e. erosion control blanket) over the disturbed areas is recommended following construction until vegetation takes place to mitigate the potential for erosion. These mitigation measures will be implemented as part of the detail design stage to ensure that erosion is mitigated during and following construction.

A monitoring program will be prepared as part of the detail design stage once Draft Plan approval has been granted.

For additional details please see the Slope Stability Assessment included in Appendix C of the revised Preliminary Servicing and Stormwater Management Report.

Comment: The swale proposed downslope of the retaining wall appears to discharge down the slope. How will erosion be prevented?

Response: *Acknowledged. The swale downslope of the retaining wall has been removed.*

Comment: Clarify where the temporary sediment pond for the central portion of the site will discharge. If the same location as the SWM pond, how will erosion be prevented without the formal outlet?

Response: *Acknowledged. It is common to use proposed stormwater management facility locations as temporary sediment and erosion control ponds during construction. Generally, the stormwater management facility is pre-graded, a temporary hickenbottom outlet riser is installed to control flows and sediment prior to discharge and additional rip rap and erosion protection measures would be implemented at the outlet location. These details are typically worked out on the erosion and sediment control drawings as part of the detail design stage, prior to construction.*

Comment: As per Park and Trail Development comments, delete the eastern portion of the trail within the NHS. The grading in this area should be minimized the extent feasible. If possible, grading should be maintained outside of the feature limit.

Response: *Acknowledged. The eastern portion of the trail has been deleted. The grading has been reduced to the grading required to construct north-south trail complete with 3:1 transition slopes into existing ground elevations. Per virtual meeting with the City of Guelph on April 20, 2023, best efforts have been utilized to mitigate the limit of grading within the NHS without introducing retaining walls in lieu of transition slopes.*

Comment: The "Limit of Natural Heritage System" and associated buffer lines on the drawings extending east to Cityview Dr are inaccurate. Revise to only include the NHS and buffer as delineated in the EIS.

Response: *Acknowledged. The NHS lines and buffers have been revised per the EIS.*

Comment: The rationale provided for the removal of Baltimore Oriole habitat is not supported. However, as staff have determined that the removal meets Official Plan Policy 4.1.4.4.4, nothing further is required.

Response: *Acknowledged.*

Comment: Nothing further regarding the tree inventory is required. However, an updated Tree Inventory and Preservation Plan, including a map displaying the location of the inventoried trees, will be required in the EIR. Note that the possibility of tree preservation in the park block should be considered in consultation with parks staff in the update.

Response: *Acknowledged.*

Comment: While acceptable at this stage because it does not affect the development limits, the Recommended Natural Heritage System has not been mapped accurately on Figure 3 and should be revised in consultation with staff for the EIR.

Response: *Acknowledged. To be addressed by others.*

Comment: The statement in the Policy conformity table that the SWM discharge to the wetland is essentially matched pre to post is a misinterpretation of the SWM report. However, as staff comments on the SWM report address this matter, nothing further in the EIS is required in this regard.

Response: *Acknowledged.*

Comment: The Significant Wildlife Habitat (SWH) Screening Table in Appendix 3 incorrectly conflates bat species protected by SWH policy and bat species protected under the Endangered Species Act. However, as none of the potential SWH for bats is proposed to be developed, nothing further is required in this regard.

Response: *Acknowledged.*

Comment: While the concept contains errors (# of compensation tree required, inclusion of Block 125, legend on the figure), as it demonstrates the ability to provide a sufficient number of replacement trees, it is acceptable. The EIR must include detailed planting plans that provide the finalized compensation amounts and address the following:

- o Reassessment of planting areas
- o Buckthorn management to provide plantable space
- o Exploration of other opportunities (e.g. railway berm)
- o Consideration for access

Response: *Acknowledged.*

Jim Hall – Engineering and Transportation Services
City of Guelph
Comments Dated June 8, 2022

Phase I ESA for 37 Cityview Drive

Comment: The Phase I ESA is not dated within the last 18 months as is required by City's Guidelines for Development of Contaminated or Potentially Contaminated Sites (2016)(Guidelines).

Response: *The previously submitted Phase One ESA report for 37 Cityview Drive North property has been updated and consolidated into a new Phase One ESA document titled "Phase One Environmental Site Assessment Cityview Ridge Subdivision, Guelph, ON", dated March 20, 2023. Please refer to the Phase One ESA report enclosed with this submission.*

Comment: A reliance letter from the qualified person (QP) was not submitted with the Phase I ESA.

Response: *Please refer to the ESA Reliance Letter dated March 20, 2023, enclosed with this submission.*

Comment: The property use is not changing to a more sensitive use (i.e. it is to remain residential, with additional new commercial development]); so, in accordance with the City's Guidelines an RSC is not required for the Site development.

Response: *Acknowledged.*

Comment: QPs responsible for drafting the Phase I ESA must submit an updated Phase I ESA to indicate an accurate environmental assessment of the current site condition to current standards, as applicable to the proposed development.

Response: *An update to previously completed Phase One ESA for 37 Cityview Drive North property has been prepared. Please refer to the updated Phase One ESA document titled "Phase One Environmental Site Assessment Cityview Ridge Subdivision, Guelph, ON", dated March 20, 2023.*

Phase I & II ESA for 20 Cityview Drive North

Comment: The property boundary for 20 Cityview Drive South in the Notice of Revised Application (October 2021) does not match the Site boundary for the reviewed Phase I and Phase II ESA reports. Properties adjacent to the north Site boundary are not included in the Phase I and Phase II ESA reports, but are included in the Notice of Revised Application. Their legal descriptions are as follows:

a) PART LOTS 30 & 33, PLAN 53, DIV C, PTS 7 TO 10 61R9762; S/T RIGHT OVER PT 9 61R9762 AS IN MS103757 AMENDED BY WC76380; GUELPH (this property does not have a municipal address but begins adjacent to the north Site boundary and runs along Cityview Drive North to the intersection of Cedarvale Av); and

b) PART LOT 33, PLAN 53, DIV C, PTS 5, 6, 12 & 13 61R9762 & PT 1 61R9917 EXCEPT PT 2 61R9917; GUELPH S/T EASE IN FAVOUR OF THE CORPORATION OF THE CITY OF GUELPH OVER PART 2, 61R9954 AS IN WC93324 (This property has a municipal address of 22 Henry Court)

Response: *The updated Phase One ESA report for Cityview Ridge Subdivision (dated March 20, 2023) includes the four parcels comprising the Subdivision lands including 20 and 37 Cityview Drive North as well as 22 Henry Court and the property legally described as Part Lot 30 and 33, Plan*

53, Division C, Parts 7 to 10 61R9762; s/t Right Over Part 9 61R9762 As In MS103757 Amended by WC76380; Guelph. Please refer to the Phase One ESA report dated March 20, 2023.

Comment: The Phase I and Phase II ESA reports are not dated within the last 18 months as is required by City's Guidelines for Development of Contaminated or Potentially Contaminated Sites (2016)(Guidelines).

Response: *Please refer to the Phase One ESA report dated March 20, 2023.*

Comment: The Phase II ESA was not identified to be prepared in accordance with either O. Reg. 153/04 (as amended) or CSA Z769-00 (as amended) as is required by the Guidelines.

Response: *Please refer to the accompanying letter regarding the 2011 Phase Two ESA at 20 Cityview Drive North property dated March 20, 2023. As indicated in the letter, the 2011 Phase Two ESA for 20 Cityview Drive North property was conducted as a due diligence investigation and in general accordance with the standard set by Canadian Standards Association (CSA) Report No. Z769-00, Phase II Environmental Site Assessment (2000) (as amended) and using industry accepted protocols.*

Comment: The current Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (2011 Standards) were published by the Ministry of the Environment, Conservation, and Parks (formerly Ministry of the Environment) in April 16, 2011, after the Phase II ESA was prepared.

Response: *As indicated in the accompanying letter regarding the 2011 Phase Two ESA at 20 Cityview Drive North property, the soil sample results reported at the time of the 2011 investigation and subsequent confirmatory soil samples collected during the remediation works at the subject property, were reviewed and compared to the currently applicable MECP Standards (MECP April 15, 2011). Based on the comparison of the analytical results to the currently applicable Standards, no new exceedances have been identified in the soil samples collected at the time of the 2011 remediation. Therefore, the assessment of the previously reported results of confirmation soil samples and conclusions of the 2011 Phase Two ESA report remain unchanged.*

Comment: A reliance letter from the qualified person (QP) was not submitted with the Phase I and II ESA reports.

Response: *Please refer to the Reliance Letter dated March 20, 2023, enclosed with this submission.*

Comment: The property use is not changing to a more sensitive use (i.e., it is to remain residential); so, in accordance with the City's Guidelines an RSC is not required for the Site development.

Response: *Acknowledged.*

Comment: QPs responsible for drafting the Phase I and II ESAs must submit updated Phase I and Phase II ESAs to indicate an accurate environmental assessment of the current site condition to current standards, as applicable to the proposed development.

Response: *An updated Phase One ESA for 20 Cityview Drive North property has been prepared. Please refer to the Phase One ESA document titled "Phase One Environmental Site Assessment Cityview Ridge Subdivision, Guelph, ON", dated March 20, 2023. Based on the findings of the 2023 updated Phase One ESA for 20 Cityview Drive property, no new Areas of Potential Environmental Concern (APECs) have been identified on the subject property, as such, no new Phase Two ESA*

for 20 Cityview Drive property is recommended at this time. Refer to the accompanying letter on Phase Two ESA for 20 Cityview Drive North property dated March 20, 2023, for further information.

Comment: The updated Phase I and Phase II ESAs must include the additional properties identified in Comment 1.

Response: *Please refer to the Phase One ESA report dated March 20, 2023, which includes the additional properties: 22 Henry Court and the property legally described as Part Lot 30 and 33, Plan 53, Division C, Parts 7 to 10 61R9762; s/t Right Over Part 9 61R9762 As In MS103757 Amended by WC76380; Guelph. Based on the findings of the Phase One ESA, no new APECs have been identified at the 20 Cityview Drive North property and no APECs have been identified on the additional properties. Therefore, no Phase Two ESA is recommended at the four properties comprising the Cityview Ridge Subdivision at this time.*

Comment: The updated Phase II ESA must be prepared in accordance with either O. Reg. 153/04 (as amended) or CSA Z769-00 (as amended) as is required by the Guidelines.

Response: *Please refer to the accompanying letter regarding the 2011 Phase Two ESA for 20 Cityview Drive North property dated March 20, 2023, for further information and confirmation that the 2011 Phase Two ESA was completed in general accordance with Phase Two ESA CSA Standard Z769-00 (as amended).*

Comment: The updated Phase II ESA must compare analytical results to the 2011 Standards.

Response: *Please refer to the accompanying letter on Phase Two ESA for 20 Cityview Drive North property dated March 20, 2023. As indicated in the letter, the soil confirmation sample results reported at the time of the 2011 Phase Two ESA investigation and subsequent confirmatory soil samples collected during the remediation, were reviewed and compared to the currently applicable MECP Standards (MECP April 15, 2011). Based on the comparison of the analytical results to the current applicable Standards, no new exceedances have been identified and the assessment of the previously reported results of confirmation soil samples and conclusions of the 2011 Phase Two ESA report remain unchanged. The recently updated Phase One ESA for 20 Cityview Drive did not identify new APECs on the subject property, therefore no further Phase Two ESA is recommended at this time.*

Comment: The updated Phase I and Phase II ESAs must include a reliance letter from the QPs to indicate that, despite any limitations or qualifications included in the reports, the City is authorized to rely on all information and opinion provided in the reports submitted for the proposed development. The reliance letter can be issued separately or within the body of the reports.

Response: *Please refer to the Reliance Letter dated March 20, 2023, enclosed with this submission.*

Service Coverage

Comment: Currently, the subject site is surrounded by Route 4 York on York Rd, Route 14 Grange on Starwood Dr, Route 17 Woodlawn Watson on Watson Pkwy N and York Rd, and Route 18 Watson Woodlawn on Watson Pkwy N and York Rd

Response: *Acknowledged.*

Comment: In the future, the subject site is proposed to be surrounded by Route 4 York on York Rd, Route 13 Eastview Watson on Watson Pkwy N and York Rd, Route 14 Grange on Starwood Dr, and Route 23 Watson Eastview on Watson Pkwy N and York Rd, pending Council approval

Response: *Acknowledged.*

Comment: Most residential units will be farther than 400 m to a bus stop with the current and proposed future routing

c) Only the connection of Cityview Dr N and Cityview Dr S allows some of the units to be within 400 m of a bus stop on York Rd
d) Note: a safe and accessible trail across the train tracks would need to be established to ensure proper access to stops

Response: *A trail connection across the tracks would be unfeasible to construct given the grades of Cityview Drive on either side of the tracks and the fact that this line accommodates double decker GO Trains.*

Service Expansion

Comment: The density of the subject site is 20 units per hectare, which does not meet the 22 units per hectare target to support basic bus service. Due to the configuration and location of the site, it is unlikely conventional bus service would be provided on-site. Service would likely be provided through on-demand service if warranted.

Response: *The density of the site has been increased to 21 units per hectare. When combined with the Cityview Drive subdivision, this new residential community will be developed at a transit supportive density. Conventional bus service could be provided through the Cityview Drive subdivision, providing a connection between Starwood Drive and Cityview Drive. This would allow bus stops to be located within 400 meters of residents in the Cityview Ridge subdivision.*

Comment: As the subject site is beyond the 400 m standard for service coverage, but does not meet the service expansion density targets, an on-demand bus stop could be implemented along Cityview Dr to better service the neighbourhood. Roads would need to be wide enough to support the regular use of buses.

Response: *The main road through this subdivision is 20 meters in width which is wide enough to support the regular use of buses. We cannot comment on the width of City approved connecting street.*

Comment: The majority of density is planned in the centre of the site, which will be the furthest from any transit service. As it is, the site is not transit-supportive.

Response: *The location of the density is based on location of the community park and the primary road servicing the subdivision as well as being across the road from the main trail system. As noted above, the density of the site has been increased to 21 units per hectare and when combined with the Cityview Drive subdivision; this new residential community will be developed at a transit supportive density.*

Transportation Services

Transportation Planning

Comment: Please note that the construction of this subdivision will initiate intersection modifications at Grange and Cityview, including a westbound left-turn lane. This project will be managed via the capital project PN0865, which includes DC funding.

Response: *Acknowledged.*

Sustainable Transportation

Comment: Staff are very supportive of the proposed 4.0 m walkway connecting Henry Court to Cityview Drive.

Response: *Acknowledged.*

Comment: Please adjust the street ROW to 20m as required to provide sidewalks on both sides of all streets, except where a proposed trail runs adjacent to the roadway and can serve as pedestrian infrastructure.

Response: *Acknowledged. Cityview Drive, Street 1 and Street 3 are designed with a 20m wide right-of-way. Street 2 stub has a 18m wide right-of-way to tie into the 18m wide right-of-way in the adjacent development to the north.*

Comment: On the south side of Street 4, as shown on NC2, it would be preferable to have a continuous trail connection between the proposed trail on the west of the site, and the westerly access to Block 119. Reverting to sidewalk for such a short stretch is very awkward for cyclists.

Response: *Acknowledged. The proposed trail alignment has been revised per the above noted comment to eliminate the sidewalk and have a continuous trail.*

Comment: Add Active Transportation connection between Blocks 113 and 114, to enhance connectivity from Street No 2 to Block 116.

Response: *Acknowledged. The site concept has been revised to include connection from former Block 116 (revised to Block 108) to Street 3 and the lands to the north via Street 2.*

Comment: Can an east-west 4.0 m pathway be added connecting Street 1 and Street 4 (per NC2), between Block 117 and lots 90 and 91? This would enhance permeability of the area for Active Transportation users.

Response: *Acknowledged. A 4.0m wide pathway has been added at the location noted above.*

Development Review Engineering

Comment: Please review all reports and drawings for consistency in road naming, and update such that all engineering-submitted items match the road naming shown on the Draft Plan, as updated. Please note that, for example, comments provided that refer to "Street 1" and "Street 4" may be referring to the same street, depending on the context of the comment, as various plans and figures identify the streets differently.

Response: *Acknowledged. The reports and drawings have been revised to be consistent with the Draft Plan.*

Comment: Please reduce the page size of plans to meet the requirements outlined in the Development Engineering Manual [DEM].

Response: *Acknowledged. The drawings have been revised to 24"x36" format.*

Preliminary Servicing & Stormwater Management Report

Comment: Please adjust the formatting of the Table of Contents, especially the Appendices, so sections and information is easier to find.

Response: *Acknowledged. The Table of Contents and Appendices have been formatted accordingly.*

Comment: Please review appropriate locations within the report for inserting figures, such that they are relevant and within context of the report body. For example, Figure 2 is inserted with the SWM Criteria section, however might be more relevant as part of Section 4.

Response: *Acknowledged. The figures have been inserted in the relevant location per the above noted comment.*

Existing Conditions

Section 3.3 – Soils: This section briefly discusses the observed seasonal high ground water level however does not provide sufficient information discussing how this impacts the existing and proposed grading design and the feasibility of developing a subdivision in this area based on the ground water table. From our review of the submitted material:

Comment: It appears that the ground water table is at or above the existing ground surface over much of the proposed development area.

Response: *It is noted that the pattern of groundwater levels on-site is dominated by the silt till soils that make up the overburden. It is emphasized that the groundwater levels across the developable area of the site are due to seasonal infiltration and precipitation processes, not persistent groundwater discharge conditions. Groundwater levels rise to levels near the ground surface in the spring due to the increased availability of moisture and infiltration and the comparatively low rate of seepage though the soil mass. This annual rise in groundwater levels is enhanced by the natural microtopography and uneven ground surface which encourages infiltration.*

Under post-development conditions, groundwater levels can be expected to decrease somewhat due to a number of factors, including the increased imperviousness of the site, engineered grading with uniform and constructed slopes, and the installation of services which create preferential drainage paths. The former two factors will reduce the opportunity for infiltration,

whereas the latter will increase the capacity for seepage and internal drainage of groundwater through the soil mass.

Comment: A large portion of the "plateau lands" are proposed to have finished grades below the existing grades.

Response: *Please see response to the comment above.*

Comment: It could be anticipated that the proposed dwelling units will be founded below the seasonal high ground water level, but there is no discussion of this in the report: we would anticipate some discussion of this including feasibility of this approach and potential mitigation methods.

Response: *Acknowledged. A discussion on the seasonal high groundwater levels has been included in Section 3.3 of the revised report.*

Comment: Based on the above, the low permeability results from the in-situ permeameter testing, and additional comments provided below, it would appear that infiltration galleries are not feasible as they cannot meet best management practices and guidelines. Though the report indicates that they are being proposed, there is no discussion the feasibility of this feature.

Response: *The revised infiltration gallery design has calculated drawdown times based on the permeameter testing completed for the site. The drawdown times are generally between 23.6 to 27.5 hours and are considered acceptable to industry standards. The revised design also includes an overflow pipe from the infiltration galleries to the storm sewer system.*

Comment: There is a high probability of the proposed development causing general and potentially significant dewatering of the area without mitigation: please comment on this, including the feasibility of this, the impact to the natural environment, any mitigation against this that is proposed, etc.

Response: *Significant dewatering of the stabilized groundwater aquifer is not anticipated for this development per the recommendations of the Geotechnical Report completed by Naylor Engineering Associated Ltd., 2006. The proposed development is located in the silt/till layer which has expected low to moderate seepage. Conventional construction dewatering by sump pumps could be required, however, significant dewatering or the installation of well points to lower the stabilized groundwater aquifer is not anticipated.*

Proposed Development

Comment: Section 4.1, paragraph 1: Text identifies that no additional grading is proposed within the natural features and buffers, however this is not correct based on the submission details.

Response: *Acknowledged. This section has been revised to state that there will be no grading within the natural features and associated buffers apart from minor grading to accommodate the trail construction.*

Comment: Section 4.3: Please include a discussion of the water demands proposed; a subsequent review of the distribution modeling will need to be performed to confirm adequate capacity.

Response: *Acknowledged. Water demands have been included in Section 4.3 of the revised report.*

Comment: Section 4.3: Please include full sized water servicing drawing(s), including the location of hydrants (show all existing hydrants being used to provide hydrant coverage, and all proposed hydrants).

Response: *Acknowledged. Please refer to enclosed drawings prepared by GM BluePlan Engineering Limited.*

Comment: Section 4.3, paragraph 3: Text says "A looped connection has been provided for Street No. 3…" – We are not sure what this is referring to. This subdivision will not have looped connections until connections are made to the adjacent subdivision (providing looping via the adjacent subdivision and the connection on Cityview Drive.)

Response: *Acknowledged. The "looped connection" description has been revised to occur once the watermain system in the Draft Plan approved lands to the north of the site is constructed.*

Comment: Section 4.4: We need more detail on the feasibility of servicing as proposed: Please provide full sized servicing plans & drainage area plans.

Response: *Acknowledged. Full sized servicing and drainage area plans are provided with the enclosed drawing set.*

Comment: Section 4.4: Please include a description of the sanitary load proposed. A subsequent review of the collection system modeling will need to be performed to confirm adequate capacity.

Response: *Acknowledged. Preliminary sanitary sewer design sheets are provided with this submission.*

Comment: Section 4.4, paragraph 3: The sewer extension design does not seem feasible based on the information provided. Sanitary sewers should not be placed through SWMFs, and there are significant clearance issues to other proposed infrastructure. More details will be needed before we can support this servicing strategy: we recommend meeting with the City to discuss prior to the next resubmission.

Response: *The Valleyhaven Subdivision Phase 3 sanitary sewer stub located within the limits of the existing stormwater management block was approved and constructed with the intent to service the subject lands. Given that we are working with existing conditions for lands that have been anticipated to be serviced though the existing sanitary sewer stub, we are of the opinion that the proposed location of the sanitary sewer through the existing stormwater management block will function and meet the required Ministry of Environment Conservation and Parks guidelines. The location of the proposed sanitary sewer has been revised so that it is not located within the flooding limits of the stormwater conveyance channel. Please refer to the enclosed drawing set for additional information.*

Comment: Section 4.5: Please provide a full-sized storm sewer and minor system drainage area plan(s).

Response: *Acknowledged. Storm sewer catchment area plan and design sheet has been provided with this submission.*

Comment: Section 4.5, paragraph 4: Text says "Where a storm service connection is not possible, foundation drainage will be provided by sump pumps discharging to the grassed side and rear yard surfaces." Please identify where in the subdivision is this anticipated. Please confirm that the proposed locations will have sufficient grading to keep the discharge away from the foundations and connecting to an appropriate outlet.

Response: *This section has been revised to outline that foundation drainage will be provided by sump pump discharging to rear yard greased areas. This will help promote natural infiltration and groundwater recharge. The proposed locations will have sufficient grading to keep discharge away from foundations and convey runoff to lot swales per the City of Guelph Development Engineering Manual.*

Comment: Section 4.8, paragraph 2: Please update typo – Section 4.9 is referenced where we believe Section 4.10 is intended?

Response: *Acknowledged. The typo and section number has been revised.*

Comment: Section 4.10 – Water Budget: The updated calculations show a deficit of recharge and an excess of runoff; our comments had previously indicated a request to match post- to pre-development on a monthly water budget basis, which is not currently being met. We also note that the pre-development values have changed since the previous submissions: can you please clarify? We note that the post-development infiltration has increased, yet see that post-development runoff also increased: can you please clarify the changes to the calculations and/or assumptions made for these changes? The report is also missing a discussion on the potential impacts to the natural environment. Based on the comments provided in this memo, runoff is expected to increase further. Water balance, and the impacts to the receiving systems, is a very important indicator of development feasibility. We recognize that meeting a post- to pre-development water balance can be a complex matter and can be very difficult to achieve especially when the soils are not conducive to infiltration; we recommend meeting to discuss this in more detail.

Response: *Acknowledged. Per discussions at our October 31, 2022 meeting with Development Engineering and Environmental Planning and subsequent email discussions, the water balance approach and calculations for the site have been revised. Please refer to the revised water balance calculations in Appendix F of the revised preliminary servicing and stormwater management report.*

Stormwater Management Plan

Comment: Section 5: Please include a copy of the drainage area plan (or similar) for the existing SWMF (Valleyhaven Subdivision).

Response: *Acknowledged. Please see Figure 3 of the revised preliminary servicing and stormwater management report.*

Comment: Section 5.1, stormwater management objectives list item 6: Is this a list item?

Response: *Acknowledged. Formatting has been revised to eliminate Item No. 6.*

Comment: Section 5.1, Table 2: How was the storm duration determined? Guelph standard (as per Stormwater Master Plan) is a 3-hour Chicago design storm.

Response: *Acknowledged. The design storm has been revised to 3-hour Chicago Storm.*

Comment : Section 5.2.1: Based on the design of the proposed infiltration galleries, they can only be placed where the seasonal high ground water table is at least 2.7m below finished grade (or lower, in places where the final grade is lower than the existing grade), however the monitoring results in Appendix C together with the various plans provided seems to indicate that there are no locations

within the proposed development that will meet this criteria. More information is needed before rear yard infiltration galleries can be deemed feasible.

Response: *Acknowledged. The infiltration gallery locations have been revised where the required separation distance from the seasonal high groundwater levels can be met. Please see Section 4.8, Water Budget, of the revised preliminary servicing and stormwater management report.*

Comment: Section 5.2.1, list item c: Is this not a repeat of list item a?

Response: *Acknowledged. This section has been revised to eliminate the repeat.*

Comment: Section 5.2.2, paragraph 2: Please include capacity for conveying the Regional Storm event.

Response: *Acknowledged. Capacity has been confirmed to convey the Regional storm event.*

Comment: Section 5.2.3, paragraph 1: Some additional details of the proposed outlet infrastructure design would be appreciated: refined or alternate cross sections of this infrastructure would likely provide the needed clarity.

Response: *Acknowledged. Outlet structure details are provided on the revised drawing set.*

Comment: Section 5.2.3, paragraph 2: Please review the design of the proposed SWMF forebay to ensure consistency with DEM and provincial guidelines: based on the proposed design it is unclear how the forebay will operate effectively for its intended function.

Response: *Acknowledged. The forebay design has been included in Section 5.2.8 and Appendix J of the revised preliminary servicing and stormwater management report.*

Comment: Section 5.2.3, paragraph 2: Please include the reasons for over-designing the SWMF to this extent.

Response: *Acknowledged. The paragraph has been revised to eliminate typographical error regarding extended detention volume. A volume of 524 m^3 extended detention is provided for the 25mm storm event to achieve a drawdown time of 25.1 hours.*

Comment: Section 5.2.4: After reviewing the submitted material, we are confused as to the design and operation of the "Cooling Trench and Dispersion Structure" feature. The general design concept provided is similar to the design concept in the previous submission, which we indicated has documented evidence of not performing well, and we requested the review of options for alternate designs. As thermal mitigation is an important criterion for stormwater at this outlet, additional information and confidence in the proposed design is required before we can support draft plan approval. We recommend meeting to discuss this prior to the next resubmission.

Response: *Acknowledged. The cooling trench design has been revised to be buried approximately 2 m below the ground surface. The revised drawing set includes cross sections of the revised cooling trench.*

It is important to note that the cooling trench and linear dispersion trench are separate structures with very different functions. The cooling trench will cool the water discharging from the pond while the linear dispersion trench, located downstream of the cooling trench will spread the flows over a wide area, preventing a point source discharge prior to outleting to the existing wetland and Clythe Creek. Details for both the cooling trench and linear dispersion trench are provided on the revised

drawing set.

Comment: Section 5.2.5: Typical - for each of the tables of values in this section, please include text summarizing where the values came from and/or how they were calculated, including references to calculations in the appropriate appendix, and/or references to report tables, as appropriate.

Response: *Acknowledged. This section has been revised as Section 5.2.6, Pre-Development Stormwater Management Analysis. Please see summary below:*

- *Table 5 – Pre-Development Condition Flow Rates and Runoff Volumes are obtained from the Existing Conditions MIDUSS Modeling fond in Appendix I of the revised preliminary servicing and stormwater management report.*
- *Table 6 – Pre-Development (Allowable) release rates to Clythe Creek are obtained from the Existing Conditions MIDUSS Modeling fond in Appendix I of the revised preliminary servicing and stormwater management report. The allowable release rates are the peak flows discharging to Clythe Creek under existing conditions (i.e., matching pre to post).*
- *Table 7 – Approved Stage/Storage Discharge from the Stormwater Quality Facility No. 2. The allowable release rates for Stormwater Quality Facility No. 2 are obtained from the approved Valleyhaven Subdivision Phase 3 Stormwater Management Design Report Draft Plan 23T-96501 and 23T-99501 for the Martini/Valeriote Subdivision (Gamsby and Mannerow Limited, March 2004).*

Comment: Section 5.2.5 c), paragraph 4 Catchment B2a: How was the imperviousness value determined? The value used does not appear consistent with the drainage area plan for the adjacent subdivision.

Response: *Acknowledged. Percent impervious calculations are included in Appendix J.*

Section 5.2.5 c), paragraph 6 Catchment B2c:

Comment: a)Design conditions for the existing facility indicated maximum 42%imperviousness for the contributing drainage area, but this report proposes 46% and does not offer discussion or analysis of the difference.

Response: *Acknowledged. Catchment areas and percent impervious values have been revised to reflect the existing Valleyhaven Phase 3 development, proposed Cityview Ridge Subdivision and Draft Plan approved lands to the north – see Section 5.2.7 of the revised preliminary servicing and stormwater management report. The existing Stormwater Quality Facility No. 2 was analyzed to reflect the post-development conditions noted above and compared to the approved design conditions from the Valleyhaven Subdivision Phase 3 as noted in the Stormwater Management Design Report Draft Plan 23T-96501 and 23T-99501 for the Martini/Valeriote Subdivision (Gamsby and Mannerow Limited, March 2004).*

Comment: b)46% impervious for this catchment does not appear correct based on the submitted drawings and the runoff coefficients outlined in the DEM: this area is a combination of single, semi, and higher density land uses, all of which have impervious values of 65% and higher. We note that this area also includes the conveyance channel, however we anticipate it will be designed to be impervious to reduce erosion, and given the HGWT we anticipate the forebay will need to be clay-lined.

Response: *Acknowledged. The percent impervious for the proposed catchments have been revised accordingly as mentioned in the response to the comment above. Please see percent impervious calculations in Appendix J.*

Comment: c)Catchment area is not the same as shown on Figure 5

Response: *Acknowledged. Catchment areas have been revised to match Figure 5.*

Comment: Section 5.2.5 c), paragraph 11 & 14, Catchments 201 & 202: Area values shown in the report for Catchments 201 & 202 do not match those on Figure 6. Please review and correct.

Response: *Acknowledged. Catchment areas have been revised to match Figure 6.*

Comment: Section 5.2.5 c), paragraph 14 Catchment 202: As this area includes rooftops and paved trails/access roads, we anticipate this value will be higher than 25%impervious.

Response: *Acknowledged. Catchment 202 area and description have been revised – please note that rooftop areas are not part of this catchment.*

Comment: Figure 6: Check drainage areas: Total drainage area pre/post do not match, and the line here does not match up with the line showing drainage area B2c on previous page.

Response: *Acknowledged. Drainage areas have been revised.*

Comment: Section 5.2.5 Table 7: Please fix typo in Total to Wetland column for the 25-Year flow rate value.

Response: *Acknowledged. Typographical error has been eliminated.*

Comment: Section 5.2.5 Table 8: Why would the 25-year peak flow be higher than the 100-year peak flow for this outlet?

Response: *Acknowledged. Typographical error has been fixed – the 25-year design storm peak flow is not higher than the 100-year design storm peak flow.*

Comment: Section 5.2.5 Table 9: Based on the usual modeling of the Regional Storm event, the storm volume is typically much larger than that of the 100-year design storm; are these values correct?

Response: *Acknowledged. Typographical error has been fixed. The Regional Storm volume is higher than the 100-year design storm volume.*

Comment: Section 5.2.5 Table 10: If our interpretation of the "Energy Dissipation/Dispersion and Cooling Structure" and the values of this table are correct, this table seems to indicate that no water will leave the structure even during the 100-year event (storage required for 100-year less than available storage; outlet is at top of structure therefore assumption is discharge limited to when storage capacity is exceeded). Can you please clarify?

Response: *Acknowledged. The table has been revised to show the storm events leaving the structure.*

Comment: Section 5.2.7 paragraph 3: Text refers to “Drawing No. 2”; we are not sure which drawing/figure this is referencing, please clarify.

Response: *Acknowledged. This section has been revised to refer to the preliminary grading and servicing plans.*

Comment: Please include preliminary design details for both the proposed conveyance channel and forebay (upstream of the existing Valleyhaven Quality Facility No.2), and the proposed SWMF.

Response: *Acknowledged. The proposed stormwater conveyance channel has been modelled under the 25mm to 100-year design storms and Regional storm event. The velocity, flow depth and peak flows through the channel are summarized in Table 9 of the revised preliminary servicing and stormwater management report. In addition, the channel grading and cross sections are shown on the revised drawing set.*

The forebay has been sized per the Stormwater Management Planning and Design Manual, 2003. Forebay sizing is provided in Section 5.2.8 of the revised preliminary servicing and stormwater management report.

Appendices

Comment: Appendix E: Can you please provide a modeling schematic for the "Hadati Creek Allowable Modelling Files"?

Response: *Acknowledged. A model schematic has been provided in Appendix J of the revised preliminary servicing and stormwater management report.*

Comment: Appendix G Monthly Water Balance: Why is the contributing area less than the site area?

Response: *Acknowledged. The water balance calculations have been revised so that the areas match.*

Appendix G Enhanced Infiltration Calculations:

Comment: a) The report calculated enhanced infiltration in combined groups based on location, however it appears they are designed to operate independently. Combining these may give an average enhanced recharge, I would like to see some sample individual lot calculations, as these will be operating independently. Additional individual calculations may be required during detail design.

Response: *Acknowledged. The lot level infiltration galleries have been removed per discussions at the October 31, 2022 meeting and subsequent correspondence with the City of Guelph in January 2023. The proposed design includes the use of a clean water collector system, capturing clean rooftop runoff and discharging it to communal infiltration galleries located in the stormwater management block and south of Street 1. Each gallery is being assessed individually.*

Comment: b) Please note that the required/preferred draindown time is less than 24 hours.

Response: *Acknowledged. The following drawdown times have been calculated for the revised infiltration galleries:*

- *Infiltration Gallery 1 – 23.57 hours*
- *Infiltration Gallery 2– 27.5 hours.*

Based on the above, it is our opinion that the drawdown times provided are in line with current industry practices of a drawdown time of 24 to 48 hours.

Comment: c) The values used for "Total Recharge & Runoff" do not match those in the water balance table on the previous page; where do these come from? Why are you using total recharge and runoff,

where calculated recharge amount (for monthly water balance) is based on naturally occurring, and only actual runoff is potentially available for enhanced infiltration?

Response: *Acknowledged. The total recharge and runoff values have been revised to reflect actual runoff only.*

Comment: Based on the calculations, there is only one month each year, on average, where the proposed infiltration galleries will not be able to accept the month's precipitation, and yet a single 2-yr storm event will send over 9x the capacity to the gallery. Based on this design a 15mm storm would fill the gallery: Guelph receives several storms each year that exceed this, and this lack of recharge is not fully captured in this calculation.

Response: *The water balance calculations assume that during wet periods of the year, the infiltration structures function by filling with clean water then storing and releasing the attenuated water into the surrounding soils. There are times when it rains for multiple days in the summer months – the infiltration galleries will not have only one drawdown occurrence during this time. The infiltration galleries will drain into the underlying soils and as they drain, new water will be discharged into the gallery, replacing the water that infiltrated into the underlying soils – the assumption is that the galleries are continuously working during wet periods of the year. This is no different than the natural attenuation that occurs on site under existing conditions. Once the galleries fill up, an overflow to the storm sewer system and stormwater management pond will be provided. The stormwater management pond has been sized without upstream infiltration gallery controls to provide a conservative design should the infiltration system fill up during an intense storm event.*

In the drier months of the year, there is less precipitation available for runoff and the infiltration structures will be dried out on some occasions. In months with greater precipitation, the infiltration structures function at their maximum capacity and will often at times could be filled with water as the structures discharge through the underlying soils and new water eaters the gallery.

Neighboring Wells

Comment: The active off-site private wells should be monitored to ensure that the proposed development does not impact well water quality or quantity. The program will be used for pre-development, during construction and post-development monitoring. The adjacent development is also developing a monitoring program that the developer may want to coordinate with. Please update City staff on the planned private well monitoring program.

Response: *It is noted that the development to the north completed a pre-development well monitoring program in 2015 (by CVD Engineering Ltd) and during construction sampling as part of the Phase 1 development in 2017. Based on the CVD pre-development well monitoring program, the existing drinking water wells are located at 115, 121, 135, 139 and 157 Cityview drive, upstream of the development to the north. Provided that the development to the north is closer to the above mentioned properties, we are of the opinion that the work completed to date and any work completed as part of Phase 2 of the development to the north is sufficient to satisfy the pre-development monitoring requirements. During the detail design stage, we can determine if any further monitoring/sampling is required as part of the construction of the Cityview Ridge Subdivision.*

Plans

General

Comment: Please submit full sized servicing drawings and drainage area plans. We recognize that this is a detail normally reviewed during detail design however given the context of this subdivision, a partial review now will be helpful to ensure the draft plan has the needed blocks/space for servicing.

Response: *Acknowledged. Please see enclosed drawing set.*

Comment: In many places on several plans, trail/pathway/walkway/sidewalk grades exceed City requirements: slopes should not exceed 5% longitudinally and 2% cross slope. If there are areas where these criteria cannot be met, it needs to be specifically highlighted to City reviewers along with justification and/or reasoning: accepting non-accessible trails/pathway/walkways/sidewalks have major implications on City function and resident mobility, so these decisions, if made, need to be made purposely and not because they were missed or not labeled on a plan.

Response: *Acknowledged. The grading of the proposed trails and sidewalks within the subdivision has been revised per the above noted comment.*

Comment: Sidewalks should be provided on both sides of all streets. (We recognize the change in comment from our last comment in 2017: policies/guidelines have changed since that comment was made.) To accommodate sidewalks on both sides of the street, please use the 20m ROW standard as per the LIS.

Response: *Acknowledged. Sidewalks are shown on both sides of the street for Cityview Dr., Street 1 and Street 3. For the Street 2 stub, sidewalk is shown on one side of the street, matching into the proposed sidewalk location with the development to the north.*

Draft Plan

Comment: More clarity is needed at Lot 27: please consider an inset or a different drawing or line scale.

Response: *Acknowledged. An additional detail of Lot 27 has been added on the Draft Plan.*

GP-1

Comment: Please identify, or remove, extra lines/linetypes; this is especially a concern within Cityview Dr.

Response: *Acknowledged.*

Comment: The south side of Street 1 appears to propose 3:1 terracing from back of curb to trail: please avoid 3:1 terracing within the ROW boulevard, especially immediately adjacent to the curb.

Response: *Acknowledged. The proposed trail has been reconfigured in this area.*

Comment: Please submit (as a separate drawing) a ROW cross section for any roads that are not as per LIS, for circulation and review. The applicant is advised to start discussions with utility agencies early if they are proposing non-standard cross sections.

Response: *The proposed cross sections are per the typical City of Guelph right-of-way sections and match with the development to the north.*

GP-2

Comment: There is a proposed 3:1 terracing along the trail/path at the SWMF weir spillway: although mentioned in general above, we need to stress that 3:1 terracing is not an acceptable slope for any pathway, trail, or vehicle maintenance access. Please review this design and update accordingly.

Response: *Acknowledged. The weir side slopes have been revised to 5:1. We kindly note that barrier free access to the sidewalk is provided via the easterly trail connection from the stormwater management pond (this would avoid travel over the weir).*

Comment: Please add slope % at curve of pathway (northeast of dispersion infrastructure).

Response: *Acknowledged. Slope % along the curve of pathway has been added.*

GP-3

Comment: Please show more grading information for both trails/pathways/walkways (beside conveyance channel and between Henry Crt and Cityview Dr), including additional slope % markings.

Response: *Acknowledged. Additional grading information at the areas indicated above has been added.*

Comment: How are the lots on Henry Crt being serviced? Is the hydrant being relocated, and to where? Does the servicing require new sewers? Changes to road, curb, etc.? Please show some additional details now (understanding some refinement and additional details will be completed during detail design.)

Response: *Acknowledged. Additional servicing details including the relocation of the existing hydrant and proposed curb locations are shown on the revised servicing plan.*

STM1

Comment: Please show full lines for cross sections: H-H section shows bottom of forebay in section but assumed section line does not cross this feature.

Response: *Acknowledged. Cross section through stormwater management pond has been revised per the above noted comment.*

Comment: Please correct southern section letter for section J-J.

Response: *Acknowledged. Section J-J southern letter has been revised.*

Comment: Notes on Section L-L: The highest groundwater elevation based on the monitoring results at BH104U is ~339.7m and at BH104L is ~338.5m; most monitoring locations have groundwater within +/- 0.5m of existing ground elevation. Please update/correct/adjust accordingly (or as appropriate for updated design).

Response: *Acknowledged. Seasonal high groundwater elevation in the cross section has been updated based on the groundwater contours generated by the regular groundwater monitoring data*

obtained by GM BluePlan Engineering Limited. A copy of the groundwater contours and monitoring data is included in Appendix B of the revised preliminary servicing and stormwater management report.

Comment: More detail is needed to see how the forebay will operate as a forebay when the inlet is perpendicular to the forebay length and the forebay is not isolated from the rest of the pond, it is only deeper.

Response: *Acknowledged. Forebay geometry has been revised.*

STM3

Comment: Please show the sanitary sewer in profile.

Response: *Acknowledged. The sanitary sewer has been added to the profile.*

NC1

Comment: For all three section views, please show other details such as the infiltration galleries, CBs, pipe, etc.

Response: *Acknowledged. The sections views have been updated to show the location of rear yard catchbasin structures and associated piping. The rear yard infiltration galleries have been removed from the proposed design.*

Comment: How does the swale, between the retaining wall and trail, end? Where does the swale/water go from the indicated end?

Response: *The swale between the retaining wall and trail has been removed.*

NC2

Comment: Match sidewalk locations with the design from the adjacent subdivision.

Response: *Acknowledged. Sidewalk locations have been coordinated with the adjacent subdivision.*

Comment: Continue sidewalk at end of Cityview (south side) and make a connection to the trail (if feasible).

Response: *Acknowledged. A trail connection has been made at this location.*

Comment: Continue sidewalk at end of Cityview (north side) and connect to the sidewalk on Street 1.

Response: *Acknowledged. The north leg of the sidewalk on Cityview connects to the Sidewalk on Street 1.*

Comment: Please extend the pathway on the south side of Street 1 to meet the SWMF pathway/access; in doing this you can remove the sidewalk immediately adjacent to this pathway.

Response: *Acknowledged. The pathway has been extended and the sidewalk has been removed per the above noted comment.*

Comment: Please show Street 2 as extending to the north to meet and match the design of the adjacent subdivision.

Response: *Acknowledged. Street 2 has been extended to meet the design of the adjacent subdivision.*

Comment: Please explore options to adding a pathway/walkway between Block 116 and Street 3, near the intersection with Street 2.

Response: *Acknowledged. The concept has been revised to show a connection from former Block 116 (now Block 108) to Street 3.*

Comment: Why is the western park boundary offset from the approved park boundary in the adjacent subdivision?

Response: *Acknowledged. the park boundary has been revised to match the adjacent subdivision.*

Comment: Please review options to add a pathway/walkway between Streets 3 & 1 immediately south of the park block.

Response: *Acknowledged. A walkway has been added at this location.*

Comments to be Resolved during Detail Design

Development Review Engineering

Comment: We note that some of the MH spacing does not meet DEM specifications.

Response: *Acknowledged. MH spacing has been revised to meet DEM specifications.*

Comment: Some proposed hydrant spacing does not meet DEM specifications.

Response: *Acknowledged. Hydrant spacing has been revised to meet DEM specifications.*

Comment: Sanitary servicing on the south/left side of Lot 17 may be very difficult.

Response: *Acknowledged. At the detail design stage, the sanitary service for the south side of Lot 17 will be designed.*

Comment: Are the STM and SAN sewers extended enough to service both sides of Lot 1?

Response: *Lot 1 can be serviced by the proposed storm and sanitary sewers.*

Transportation Services

Traffic Planning

Further to the previous comments related to No Parking restriction, please ensure the future registered subdivision plan to identify all feasible permissive parking spaces. A minimum of 7.0m between driveway edge to adjacent driveway edge should be provided for a permissive parking space. In 2019 City Council approved a new on-street parking policy. As per the policy,

Comment: a) if the pavement width of a local or collector two lane roadway is above 8.4m (curb to curb) – parking is permitted on both sides of the roadway; and

Response: *Acknowledged. A detailed signage and on-street parking plan will be provided as part of the detailed design submission once Draft Plan Approval has been granted.*

Comment: b) if the pavement width of a local or collector two lane roadway is between 6.0m and 8.3m (curb to curb) – parking is permitted on one side of the roadway.

Response: *Acknowledged. A detailed signage and on-street parking plan will be provided as part of the detailed design submission once Draft Plan Approval has been granted.*

Comment: The future registered subdivision plan must be provided with complete signs and pavement marking plans in accordance with Ontario Traffic Manual.

Response: *Acknowledged. A detailed signage and on-street parking plan will be provided as part of the engineering submission package once Draft Plan approval has been granted.*

Nathan Garland, Resource Planner
Grand River Conservation Authority
December 14, 2021

Prior to any grading or construction on the site and prior to the registration of the plan, the owners or their agents submit the following plans and reports to the satisfaction of the Grand River Conservation Authority:

Comment: a) A detailed stormwater management report in accordance with the 2003 Ministry of Environment Report entitled, "Stormwater Management Practices Planning and Design Manual" and referencing the revised Plans and Preliminary Stormwater Management Report prepared by GM BluePlan dated August 2021.

Response: *Acknowledged. A detail stormwater management report will be prepared as part of the detail engineering submission package once Draft Plan approval has been granted.*

Comment: b) An erosion and siltation control plan in accordance with the Grand River Conservation Authority Guidelines for sediment and erosion control, indicating the means whereby erosion will be minimized and silt maintained on site throughout all phases of grading and construction.

Response: *Acknowledged. An erosion and siltation control plan will be prepared as part of the detail engineering submission package once Draft Plan approval has been granted.*

Comment: c) Detailed lot grading and drainage plans showing existing and proposed grades.

Response: *Acknowledged. Detailed lot grading and drainage plans will be prepared as part of the detail engineering submission package once Draft Plan approval has been granted.*

Comment: d) An Environmental Implementation Report (EIR) to the satisfaction of the Grand River Conservation Authority in consultation with the City. The EIR should include the above noted reports, monitoring, and mitigation outlined in the EIS and EIS addendums.

Response: *Acknowledged. To be provided by others.*

Comment: e) A Development, Interference with Wetlands and Alterations to Shorelines and Watercourses permit under Ontario Regulation 150/06 for any proposed works within the regulated area.

Response: *Acknowledged. The permit will be prepared in advanced of grading, servicing or registration.*

Comment: That the subdivision agreement between the owners and the municipality contain provisions for the completion and maintenance of the works in accordance with the approved plans and reports noted in Condition 1) above.

Response: *Acknowledged. Appropriate clause to be provided in the Subdivision Agreement.*

Required for Detailed Design:

Comment: We acknowledge that seasonally high groundwater levels at or near surface render infiltration measures to be unfeasible in some areas of the proposed development. We recommend maximizing infiltration footprint where possible to make up the deficit. For detailed design, please also confirm available clearance from the bottom of the infiltration trench to the seasonally high groundwater levels.

Response: *Acknowledged. Infiltration gallery locations have been revised and footprint is based on 0.5 m deep structure. Clearances to the seasonal high groundwater levels are discussed in greater detail in Section 4.8, Water Budget, of the revised preliminary servicing and stormwater management report.*

Comment: The cooling trench calculations assume constant temperature of stone buried in the trench and that do not account for contact time needed to achieve cooling targets. For the proposed development in which discharge is to be dispersed as sheet flow from a rock trench to a vegetated surface separated from the creek by a wetland we are satisfied that a best management approach will be sufficient. This can include emergent vegetation in the SWM facilities permanent pool and vegetated shading of the rock trench to isolate it from direct solar radiation.

Response: *Acknowledged. The best management approach noted above will be implemented in the detailed design submission package.*

Comment: The 0.4m proposed permanent pool depth in the eastern SWM facility is slightly deeper than the MOE recommended 0.15m to 0.3m for a constructed wetland. To better ensure that it will have dense emergent vegetation to shade the pool, and as the pond currently features surplus water quality volume, we recommend reducing the permanent pool depth.

Response: *Acknowledged. The permanent pool depth has been revised to be 0.3m deep.*

Comment: We note that the Slope Stability Assessment of the South Facing Slope conducted by Englobe in March 2019 noted that “As portions of the proposed development are located beyond the stable slope and development setback limits for a FS of 1.5, the development will need to be modified and the slope should be re-analysed under the actual proposed conditions when they are finalized. Alternatively, the results for a FS of 1.3 may be used for the site plan of the proposed development provided additional borehole investigation including monitoring wells and site inspection are being completed.” We presume this is referring to the proposed SWM Facility

Access road and the proposed setback at Sections D and E. At detailed design stage, please indicate which factor of safety is being met and if further analysis is required.

Response: *Acknowledged. The Factor of Safety of 1.5 including 6m buffer is shown for the south facing slope. The stormwater management facility including access road is located outside of the 6m buffer.*

Comment: We recommend that the Geotechnical Engineer review the proposed overland flow route from the Wetland SWM facility over the slope with the inclusion of the energy dissipation/cooling structure and comment on impacts, if any, to the stability of the slope.

Response: *A Slope Stability Assessment has been completed by JLP Services Inc. (JLP) in 2023 to assess the stability and erosion of the existing slope at the stormwater management facility outlet. It has been concluded that the slope is stable under proposed conditions with full flow from the stormwater management facility. Following construction, the disturbed areas are to be stabilized with topsoil, seed (or sod), erosion control blanket and vegetation. For additional details please see the Slope Stability Assessment included in Appendix C of the revised Preliminary Servicing and Stormwater Management Report.*

Comment: A Terms of Reference for the Environmental Implementation Report should be submitted for review to the City and GRCA. The EIR should identify how it will respond to the various recommendations in the EIS update, Preliminary Servicing and Stormwater Management Report. This includes but is not limited to details on the proposed retaining wall and community trail design and alignment.

Response: *Acknowledged. This will be provided as part of the detail design of the subdivision once Draft Plan approval has been granted.*

Advisory:

Comment: The confirmed breeding information of the Locally Significant American Redstart and Baltimore Oriole should be used to help inform the proposed design and alignment of the community trail within the EIR.

Response: *Acknowledged. To be addressed by others.*

Comment: The EIR should include a homeowner stewardship manual that identifies the community natural heritage features, salt smart program, and SWM treatment train features.

Response: *Acknowledged. To be addressed by others.*

Comment: The update to the status of the woodlot should be identified in the City of Guelph Natural Heritage System resources as well as the Clythe Creek subwatershed study update.

Response: *Acknowledged. To be addressed by others.*

Comment: In Appendix G, a DIV/0 error results in a calculation error for the proposed infiltration structures at Lots 102-106 and Blocks 114-115.

Response: *Acknowledged. The DIV/0 errors have been addressed.*

Enclosed with this response letter are the following documents:

- Engineering Drawings (GM BluePlan Engineering Limited, Revision No. 11, dated June 1, 2023)
- Preliminary Servicing and Stormwater Management Report (GM BluePlan Engineering Limited, Revised June 2023).
- Storm Sewer Design Sheet (GM BluePlan Engineering Limited, dated April 2023).
- Sanitary Sewer Design Sheet (GM BluePlan Engineering Limited, dated April 2023).
- Clean Water Collector (CWC) Design Sheet (GM BluePlan Engineering Limited, dated April 2023).
- Phase One and Phase Two Environmental Site Assessment Letter of Reliance (GM BluePlan Engineering Limited, dated March 22, 2023).
- Phase One Environmental Site Assessment Cityview Ridge Subdivision, Guelph, ON (GM BluePlan Engineering Limited, dated March 22, 2023).
- Phase Two Environmental Site Assessment Letter 20 Cityview Drive North, Guelph, ON (GM BluePlan Engineering Limited, dated March 20, 2023).

We trust this is the information you require at this time. If you have any questions or require additional information, please do not hesitate to call.

Yours truly,

GM BLUEPLAN ENGINEERING LIMITED
Per:

Angela Kroetsch, P.Eng.
AK/SZ

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